Question Bank (I scheme)

Name of Subject: Principles of Database (POD) **Unit Test: II**

Subject Code: 22321 **Course: IF3I**

Semester: III

Chapter 3- Database design using ER model (32 marks)

2 Marks

1. Draw any four symbols used to draw ER diagram with their meaning.
2. Define unary, binary and ternary relationships with example.
3. Define primary key and foreign key with example.
4. Differentiate between super key and candidate key with example (Min. 2 points)

4 Marks

1. Differentiate between strong entity set and weak entity set.
2. Explain types of attributes in ER model with example.
3. Explain Enhanced ER model with example.
4. Draw ER diagram for library management system, library maintain data about books, borrowers, issue return details, fine collection, suppliers of book, etc,.Assume suitable data and display relationship among entities with the help neat ER diagram.
5. Draw ER diagram for hospital management system.
6. For each of the following relationships, indicate the type of relationship(1:1,1:m,m:1,m:n)
   a. Works in (a relationship between entities dept and staff)
   b. Manager (a relationship between entities employee and dept)

Chapter 4-Relational database model (28 marks)

2 Marks

1. How to apply not null constraint at the time of table creation? Give syntax.
2. Define schema. Give its two examples.
3. Define integrity constraints. List its types.
4. Describe how to delete data from table with example.

4 Marks

1. Explain Domain integrity constraint with example.
2. Explain Referential integrity constraint with example.
3. Describe 'On Delete Cascade' clause with example.
4. Explain any four Codd's rules.
5. Describe four ways to insert record into table.

Chapter 5-Normalization (24 marks)

2 Marks

1. Define normalization. Give its two objectives.
2. Define denormalization.Give its two benefits.

4 Marks

1. Describe functional dependencies with example.
2. Explain need of normalization? Explain 2NF with example.
3. Compare 3NF and BCNF with example.
4. Consider a relation R with 5 attributes A, B, C, D, E. You have given following dependencies,
   A ->BC, DE->C, C->DE, BC->A
   a. List all keys for R.
   b. In what Normalized form the R is? Justify your answer
5. Given student(rollno,name,class,total_marks,percentage,grade) .Find appropriate functional dependencies and normalize upto 3NF